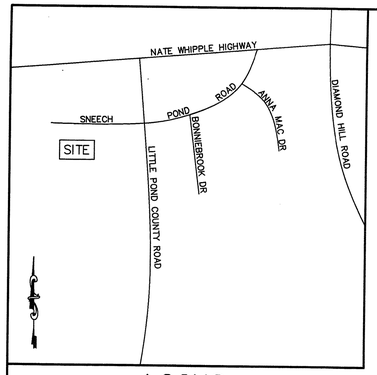

LOCUS

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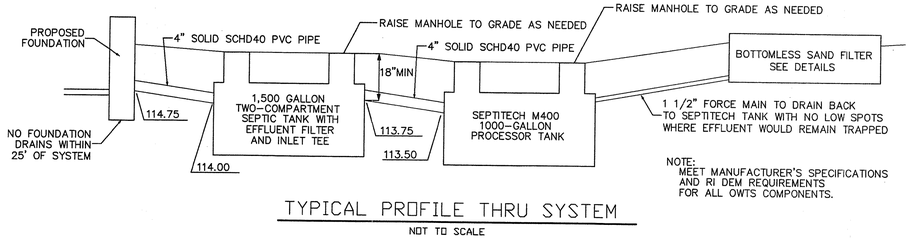


NOTE:
MEET MANUFACTURER'S SPECIFICATIONS AND RI DEM REQUIREMENTS FOR ALL OWTS COMPONENTS.

TYPICAL PROFILE THRU SYSTEM

NOT TO SCALE

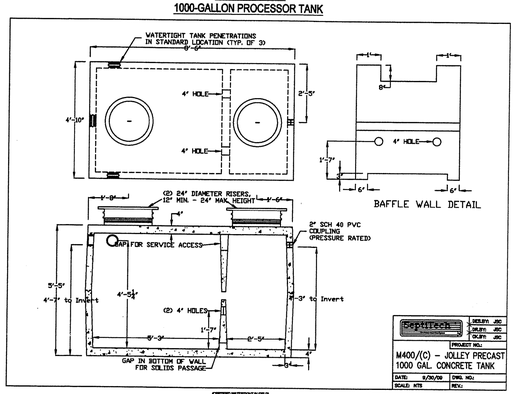
LEGEND

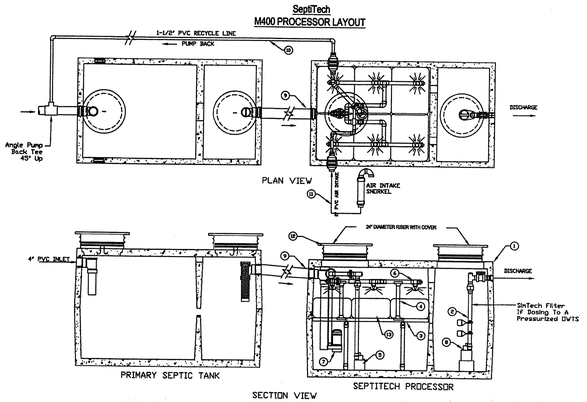
S.F.	SQUARE FEET
TH	TEST HOLE
APP.	APPLICATION
O.W.T.S.	ON-SITE WASTEWATER TREATMENT SYSTEM
T.O.F.	TOP OF FOUNDATION
ELEV.	ELEVATION
MIN.	MINIMUM
TYP.	TYPICAL
UP	UTILITY POLE
GW	GUY WIRE
WF	WETLAND FLAG
DH	DRILL HOLE
FND	FOUND
BOT.	BOTTOM

NOTE:
THERE WERE NO SOIL EVALUATION TEST HOLES OR WATER TABLE DETERMINATIONS PERFORMED ON THE SITE TO DETERMINE THE WATER TABLE AT THE PROPOSED DWELLING. THE BASEMENT SLAB ELEVATION IS TO BE DETERMINED BY OTHERS.

TABLE OF ELEVATIONS:

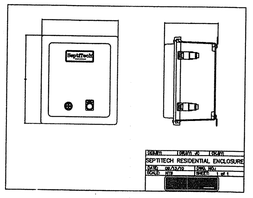
GROUND AT TH#1	122.3
WATER TABLE AT TH#1	114.3
GROUND AT TH#2	117.7
WATER TABLE AT TH#2	111.7
GROUND AT TH#3	115.2
WATER TABLE AT TH#3	113.2
INV. OUT HOUSE	114.75
SEPTIC TANK ELEVATIONS:	
INV. IN SEPTIC TANK	114.00
INV. OUT SEPTIC TANK	113.75
TOP OF SEPTIC TANK RISER	115.50
SEPTITECH M-400 ELEVATIONS:	
INV. IN SEPTITECH	113.50
TOP OF SEPTITECH TANK RISER	115.33
BOTTOMLESS SAND FILTER ELEVATIONS:	
SAND/PEA STONE INTERFACE	118.00
INV. OUT OF LATERALS	118.25
TOP OF PEA STONE	118.75
TOP OF ENCLOSURE	118.75
FINISH GRADE AROUND B.S.F	118.00 TO 117.00

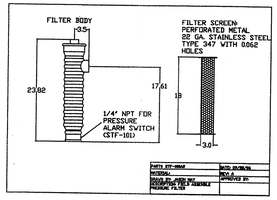


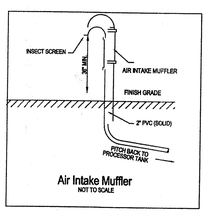


1	1000 Gal. CONCRETE Tank	8	Discharge Pump
2	Discharge Assembly w/ SINTECH Filter (if required)	9	Inlet Pipe
3	Support Structure	10	Pump Back Line
4	Spray Header Support Structure	11	Air Intake Line
5	Pump Back Assembly	12	Riser with Cover
6	Spray Header Assembly	13	Bio Media
7	Recirculation Pump		
ITEM	DESCRIPTION	ITEM	DESCRIPTION

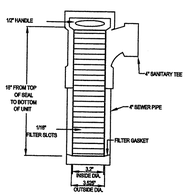
NOTE TO INSTALLER
The primary septic tank needs to be filled with clean water to the level of the outlet. The SeptiTech processor tank needs to be 1/2 filled with clean water prior to startup.



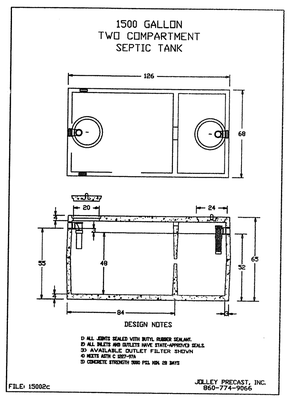


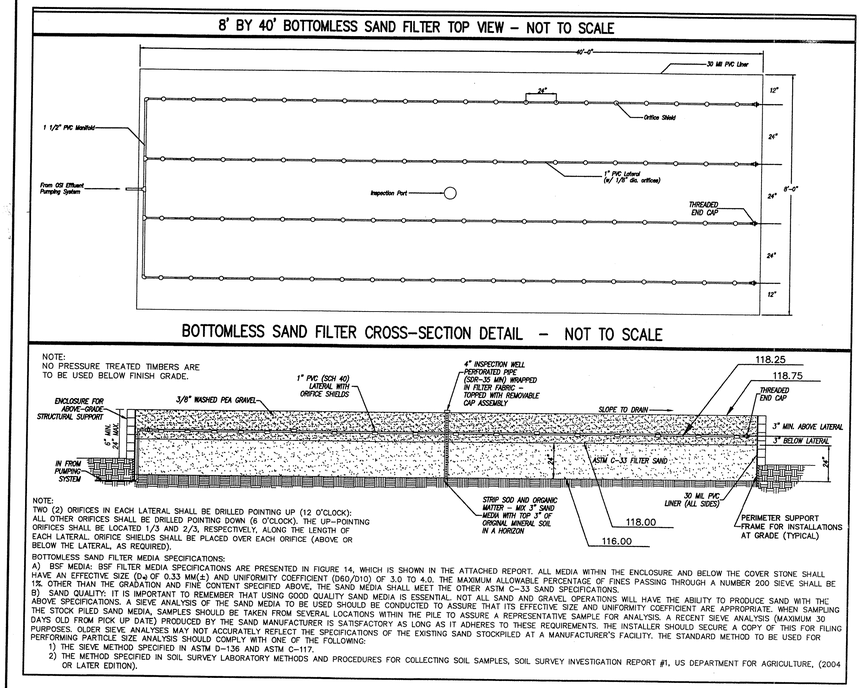


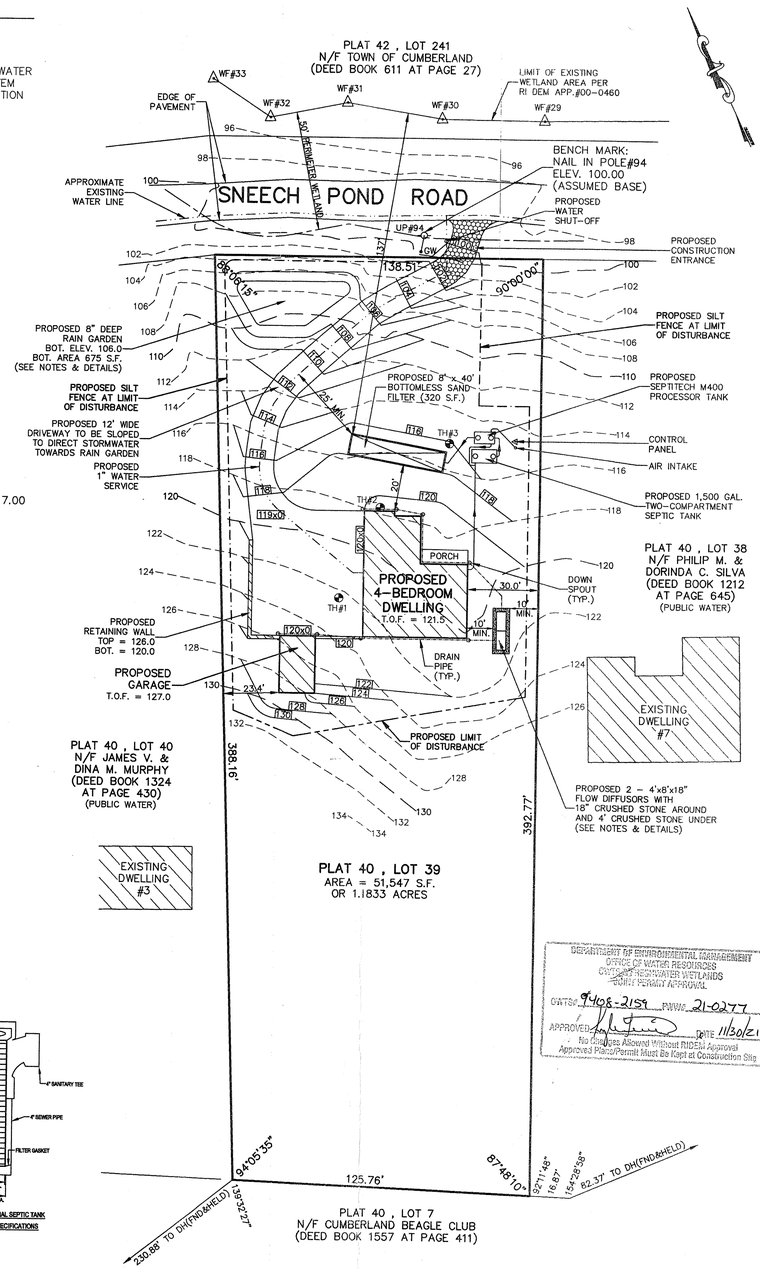
Air Intake Muffler
NOT TO SCALE



ZABEL A1000 RESIDENTIAL SEPTIC TANK EFFLUENT FILTER SPECIFICATIONS







DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
CHANGE FRESHWATER WETLANDS
PERMIT APPROVAL
DATE# 9408-2159 PERMIT# 21-0277
APPROVED
DATE 11/30/21
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site

TEST HOLE DATA:
DATE DUG - 9-3-21
TEST HOLE - TH#3

GROUND WATER TABLE DATA: 9408-2159
PERFORMED BY: MATTHEW COTTA
WATER TABLE DEPTH = 2'-0"

REQUIRED CAPACITY OF LEACHING SYSTEM:
4 BEDROOMS X 115 GALLONS PER BEDROOM = 460 GALLONS PER DAY

DESIGN RATE: 1.5 GAL/SF/DAY (CATEGORY 9 SOIL)
BOTTOMLESS SAND FILTER SIZE REQUIRED: 307 SQUARE FEET
BOTTOMLESS SAND FILTER SIZE PROPOSED: 320 SQUARE FEET

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF SURVEY:
LIMITED CONTENT BOUNDARY SURVEY
DATA ACCUMULATION SURVEY
TOPOGRAPHIC ACCURACY

MEASUREMENT SPECIFICATION:
CLASS III
CLASS III
T-2

STATEMENT OF PURPOSE:
THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:
1) PREPARE A PROPOSED O.W.T.S. PLAN.

MICHAEL R. DARVEAU
NO. 1978
PROFESSIONAL LAND SURVEYOR
10/8/21

BY: _____ 10/8/21
MICHAEL R. DARVEAU, PLS#1978 DATE
PRESIDENT, DARVEAU LAND SURVEYING, INC. COA #LS-A497

Environmental Management
OCT 20 2021
Office of Water Resources

DARVEAU LAND SURVEYING, INC.
P.O. BOX 7918
CUMBERLAND, R.I. 02864
PHONE 401-475-5700
E-MAIL: MIKE@DARVEAUSURVEY.COM

PROPOSED O.W.T.S. PLAN FOR
NORTHEAST BUILDING SOLUTIONS, INC.
PLAT 40 , LOT 39
5 SNEECH POND ROAD
CUMBERLAND , RHODE ISLAND

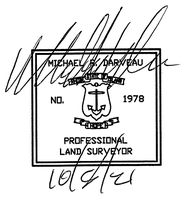
DRAWING NO: 2021_031	REVISED	SCALE: 1" = 30'	DRAWN BY: S.A.K.
SHEET NO: 1 OF 2	DATE: OCT. 8, 2021		

GENERAL NOTES:
1. THE SLOPE OF BUILDING SEWER FROM DWELLING TO SEPTIC TANK SHALL NOT BE LESS THAN 1 PERCENT AND NOT GREATER THAN 5 PERCENT.
2. USE SCHD 40 PVC PIPING OR EQUIVALENT THROUGHOUT SEWAGE SYSTEM, EXCEPT AS NOTED.
3. NO WELL EXISTS WITHIN 200 FEET OF THE PROPOSED SEWAGE SYSTEM EXCEPT AS SHOWN.
4. IF A WELL IS PROPOSED, NO SEWAGE SYSTEM EXISTS WITHIN 200 FEET OF THE PROPOSED WELL EXCEPT AS SHOWN.
5. ALL WELLS, EXISTING AND PROPOSED, WITHIN 200 FEET OF THE SEWAGE SYSTEM ARE SHOWN. ALL PUBLIC WELLS, EXISTING AND PROPOSED, WITHIN 500 FEET OF THE SEWAGE SYSTEM AREA ARE SHOWN.
6. IF A DRIVEWAY OR PAVEMENT IS TO BE NEAR THE SEWAGE SYSTEM, A PROTECTIVE BERM IS TO BE PLACED AROUND THE SEWAGE SYSTEM IN THE AREA OF THE DRIVEWAY OR PAVEMENT TO PREVENT VEHICULAR TRAFFIC TRAVELING OVER THE SEWAGE SYSTEM.
7. INSTALLER TO MEET ALL O.W.T.S. SPECIFICATIONS AND REQUIREMENTS.
8. NO DRAINS OF ANY KIND SHALL BE LOCATED WITHIN 25 FEET OF THE PROPOSED SEWAGE SYSTEM.
9. THE FINISH GRADE AT 5 FEET FROM ALL SIDES OF LEACHING FIELD SHALL NOT BE LOWER THAN ELEVATION OF 116.00 WITH 3:1 SLOPE.
10. OWNER AND/OR BUILDER IS RESPONSIBLE FOR BUILDING AND LEACHING FIELD MEETING LOCAL ZONING SETBACK REQUIREMENTS.
11. ALL UNDERGROUND UTILITIES AND STRUCTURES ARE APPROXIMATE AND MUST BE FIELD VERIFIED BEFORE THE START OF ANY CONSTRUCTION OR EXCAVATION.
12. THE PROPOSED SILT FENCE IS TO BE INSTALLED BEFORE THE START OF ANY CONSTRUCTION AND REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE REVEGETATED.
13. THE SILT FENCE IS TO BE INSPECTED ONCE A MONTH OR AFTER ALL STORM EVENTS AND REPAIRED AS NEEDED.
14. INSTALLER IS RESPONSIBLE FOR MEETING ALL SEPTITECH SPECIFICATIONS AND REQUIREMENTS.
15. REMOVAL OF ALL TREES, BRUSH, SHRUBS AND BOULDERS IS TO EXTEND 10-FEET BEYOND ALL SIDE OF THE PROPOSED BOTTOMLESS SAND FILTER.
16. ALL EXISTING WELLS SHOWN ARE TAKEN FROM ACTUAL FIELD LOCATIONS.
17. ALL LEACHING FIELDS SHOWN ARE TAKEN FROM FIELD SURVEY OR EXISTING PLANS.
18. NO PRESSURE TREATED TIMBERS ARE TO BE USED BELOW FINISHED GRADE.
19. PARCEL BEING ASSESSOR'S PLAT 40, LOT 39.
20. PARCEL AREA EQUALS 51,547 S.F. OR 1.1833 ACRES.
21. THE PARCEL IS LOCATED WITHIN THE TOWN OF CUMBERLAND PUBLIC DRINKING WATER SUPPLY WATERSHED.

SEPTIC TANK NOTES:
1. ONE INLET AND ONE OUTLET SHALL BE PROVIDED THROUGH THE APPROPRIATE END OR SIDE WALL OF EACH TANK. WHERE MORE THAN ONE INLET IS REQUIRED FOR MULTIPLE BUILDING SEWERS, THE TANK SHALL BE MANUFACTURED WITH THE APPROPRIATE NUMBER OF INLETS.
2. THE INVERT ELEVATION OF THE OUTLET SHALL BE AT LEAST 3 INCHES BELOW THE INVERT ELEVATION OF THE INLET, AND ABOVE THE SEASONAL HIGH GROUNDWATER TABLE.
3. THE OUTLET AND INLET PIPES SHALL BE CONNECTED TO THE SEPTIC TANK WITH A WATERTIGHT SEALED FLEXIBLE JOINT. THE PIPE GASKET SHALL BE AN INTEGRAL PART OF ALL TANKS AND THE PIPE GASKET SHALL BE FASTENED TO THE PIPE WITH A STAINLESS STEEL RETRACTABLE CLAMP. A FRICTION FIT CONNECTION IS ONLY ALLOWED IF THE TANK IS PERFORMANCE TESTED.
4. SEPTIC TANKS SHALL BE PROVIDED WITH AN INLET SANITARY TEE AND OUTLET TEES OR OTHER NON-CORRODING EQUIVALENT DEVICE APPROVED BY THE DIRECTOR. THE INLET AND OUTLET TEES SHALL BE MINIMUM SDR 35 PVC SOLVENT WELDED. THE TOPS OF THE TEES SHALL EXTEND A MINIMUM OF 6 INCHES ABOVE THE FLOW LINE, AND SHALL BE LEFT OPEN TO PROVIDE VENTILATION. THERE SHALL BE AN AIR SPACE OF AT LEAST 3 INCHES BETWEEN THE TOP OF THE TEES AND TOP INTERIOR OF THE TANK.
5. THE INLET SANITARY TEE SHALL EXTEND DOWNWARD AT LEAST 12 INCHES BELOW THE FLOW LINE.
6. THE OUTLET TEE SHALL EXTEND DOWNWARD 1/3 OF THE DEPTH BELOW THE FLOW LINE. ALL OUTLET TEES OR OTHER APPROVED OUTLET DEVICES SHALL BE EQUIPPED WITH AN EFFLUENT SCREEN.
7. SPECIFICATIONS FOR INLET TEES AND OUTLET TEES ARE FOR NORMAL, LOW-FLOW CONDITIONS. HIGH-FLOW CONDITIONS, CREATED WITH LIQUID IS PUMPED FROM ANOTHER TANK, MAY REQUIRE OTHER DIMENSIONS AND CONSIDERATIONS.
8. A MINIMUM 20 INCHES INSIDE DIAMETER ACCESS OPENING SHALL BE LOCATED OVER BOTH THE INLET TEE AND OUTLET TEE. ALL SEPTIC TANK OPENINGS SHALL MEET THE FOLLOWING REQUIREMENTS.
9. THE ACCESS OPENING OVER THE OUTLET TEE SHALL BE BROUGHT TO FINISHED GRADE. OTHER ACCESS OPENINGS SHALL EITHER BE BROUGHT TO FINISHED GRADE OR WITHIN 12 INCHES OF FINISHED GRADE. WHERE A RISER IS REQUIRED, IT SHALL BE WATERTIGHT.
10. LIDS ON TOP OF THE SEPTIC TANK SHOULD REMAIN IN PLACE WHERE PRACTICAL. LIDS FOR THE OPENING AT FINISHED GRADE SHALL PREVENT UNAUTHORIZED ENTRY BY MEETING EITHER OF THE FOLLOWING: (A) LID SHALL WEIGHT A MINIMUM OF 59 POUNDS AND FIT TIGHTLY ONTO THE RISER OR (B) LID SHALL BE TAMPER RESISTANT AND MECHANICALLY FASTENED.
11. THE SEPTIC TANK MANUFACTURERS SHALL PROVIDE AND LICENSED OWTS INSTALLERS SHALL ATTACH A LABEL OF NON-CORROSIVE MATERIAL IN A PROMINENT LOCATION AT EACH ACCESS OPENING TO WARN THAT "ENTRANCE INTO THE TANK COULD BE FATAL."
12. SURFACE WATER SHALL BE DIVERTED AWAY FROM THE SEPTIC TANK OPENING.
13. ACCESSIBILITY TO SEPTIC TANKS SHALL BE LOCATED ON THE LOT AS TO BE ACCESSIBLE FOR SERVICING AND CLEANING.
14. INSTALLATION OF ALL SEPTIC TANKS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S MINIMUM REQUIREMENTS. IN ADDITION, ALL SEPTIC TANKS MUST MEET THE INSTALLATION REQUIREMENTS SPECIFIED.
15. THE SEPTIC TANK SHALL BE INSTALLED ON A LEVEL, STABLE BASE THAT WILL NOT SETTLE.
16. BACKFILL SHALL BE PLACED AROUND THE SEPTIC TANK IN SUCH A MANNER AS TO AVOID DAMAGE TO IT. ALL BACKFILL PLACED AROUND THE SEPTIC TANK SHALL BE FREE OF LARGE STONES, STUMPS, WASTE, CONSTRUCTION MATERIAL AND RUBBISH.
17. WHERE ANY PORTION OF A SEPTIC TANK IS INSTALLED BELOW THE SEASONAL HIGH GROUNDWATER TABLE, THE TANK'S SUSCEPTIBILITY TO FLOATATION SHALL BE DETERMINED, AND PROVISIONS SHALL BE MADE TO PREVENT FLOATATION, WHERE NECESSARY AS DETERMINED BY THE FLOATATION CALCULATIONS.
18. WHENEVER MORE THAN 25 PERCENT OF THE DAILY DESIGN FLOW IS PUMPED INTO A SEPTIC TANK, THE TANK CAPACITY SHALL BE INCREASED BY 50 PERCENT BEYOND THE MINIMUM CAPACITIES.
19. THE MINIMUM COVER OVER THE INVERT OF THE OUTLET SHALL BE 18 INCHES. IF THE DEPTH OF COVER EXCEEDS 42 INCHES, THE OWTS APPLICATION SHALL INCLUDE DOCUMENTATION OF THE TANK'S ABILITY TO STRUCTURALLY WITHSTAND THE LOADING, AND THE TANK'S DESIGN SHALL ALLOW FOR PROPER MAINTENANCE AND ACCESS.
20. THE SEPTIC TANK SHALL BE A MINIMUM OF 75 FEET FROM ALL WELLS.

GENERAL SEPTITECH NOTES:

- Tank(s) shall not be installed at a depth any greater than 24-inches. Tank installations requiring a depth greater than 24-inches shall do so with prior approval by SeptiTech only.
- Tank(s) shall be placed on a minimum of 6-inch (12-inches preferred) of compacted sand, peastone or stone dust bedding. Select fill shall be used for backfilling around tanks. Native material may be used if approved by the design engineer.
- Water Testing: Contractor is responsible for water testing the concrete tank(s) once the tank(s) installation has been completed and allowed to set overnight. Water testing shall be conducted in accordance with ASTM C1227.9.2. Installing contractor shall be responsible for providing clean water for the testing, filling the tanks, and pumping the tanks dry once testing is completed.
- Exterior Piping: Contractor is responsible for supplying and installing all exterior piping per SeptiTech installation drawings.
- Air Intake Piping: Air intake snorkel shall be installed within 100 feet of the processor tank. Air intake piping shall be installed such that a positive pitch is provided back towards the processor tank such that any condensation build up is free to drain.
- Pipe Insulation: Contractor is responsible for insulating all piping exterior to the SeptiTech processor including the discharge line from the processor to the disposal field.
- Tank Insulation: After concrete tanks have been installed and water testing is completed, contractor shall insulate the top and sides of the processor tank below frost depth (4-feet minimum) down the sides of the tank with 2" rigid foam (blue) board insulation and then complete backfilling. Contractor is also responsible for installing insulation over the top of the forcemain from the SeptiTech system to the disposal field if not buried below frost level in order to prevent freezing. The Contractor is also responsible for installing insulation over the top of the return line from the processor tank back to the septic tank in order to prevent freezing.
- Electrical: All electrical work is the responsibility of the contractor's licensed electrician and is not provided by SeptiTech.
- SeptiTech processors can also be built to 3-phase power requirements. If 3-phase is required, please notify SeptiTech at the time of contract signing.



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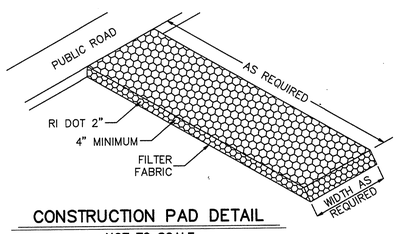

CONSTRUCTION PAD DETAIL
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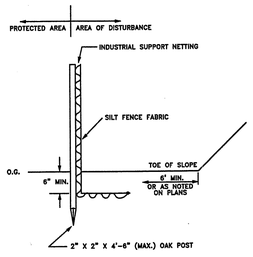


SILT FENCE DETAIL
NOT TO SCALE

GENERAL CONTRACTOR'S NOTES:
1. ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE TAKEN FROM EXISTING FIELD LOCATION AND/OR EXISTING PLANS.
2. NO EXCAVATION IS TO OCCUR UNTIL "DIG SAFE" AND ALL APPROPRIATE UTILITY COMPANIES HAVE BEEN NOTIFIED AND MARKED THE EXACT LOCATION ON THE GROUND.
3. THE OWNER/CONTRACTOR/INSTALLER IS TO INSURE THE PROPOSED RETAINING WALLS MEET ALL APPLICABLE LOCAL, STATE, AND/OR FEDERAL REQUIREMENTS.

WATER NOTES:
1. THE BEDDING FOR THE PROPOSED WATER SERVICE SHALL BE SAND, 8" AROUND THE SERVICE. IN AREAS OF LEDGE, THE SAND WILL BE 12" AROUND THE SERVICE.
2. THE PROPOSED WATER SERVICE IS TO BE 1" TYPE K COPPER TUBING.

SEDIMENTATION AND EROSION CONTROL:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION & EROSION CONTROL.
2. EMBANKMENT SLOPES & ALL DISTURBED AREAS ARE TO RECEIVE A LAYER OF TOPSOIL (LOAM) AND SEED.
3. IMMEDIATELY UPON COMPLETION OF THE CLEARING AND GRUBBING AND PRIOR TO ANY ROUGH GRADING, A TEMPORARY SILT FENCE SHALL BE PLACED AT THE LIMIT OF PERMANENT DISTURBANCE PER PLAN.
4. ALL EROSION & SEDIMENTATION CONTROL SHALL BE CONTINUALLY MAINTAINED BY THE CONTRACTOR.

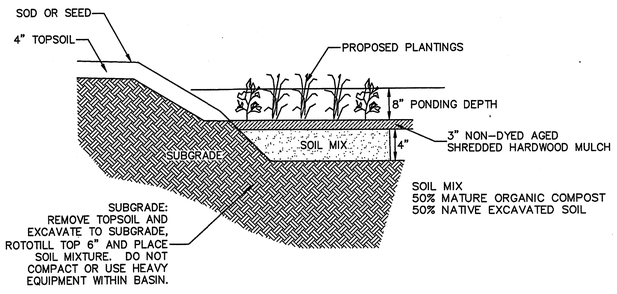
EROSION & SOIL STABILIZATION PROGRAM:
1. TEMPORARY TREATMENTS SHALL CONSIST OF A SILT FENCE, HAY BALES, WATTLES (MULCH TUBES), OR PROTECTIVE COVERS SUCH AS FABRIC MATS.
2. ALL CONTROLS SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED COVER IS ESTABLISHED.
3. NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 – OCT. 15.
4. ALL FILL, IF REQUIRED, SHALL BE CLEAN AND THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH RIDPW STANDARD SPECIFICATION SECTION 202.

SEDIMENTATION CONTROL PROGRAM:
1. A TEMPORARY SILT FENCE, HAY BALES, WATTLES, OR PROTECTIVE COVER SHALL BE INSTALLED PRIOR TO CONSTRUCTION & SHALL BE MAINTAINED CONTINUALLY. IN ADDITION TO THE LINE OF THE SILT FENCE AT THE LIMIT OF PERMANENT DISTURBANCE, TEMPORARY BARRIERS SHALL BE CONSTRUCTED AT THE TOE OF THE DISTURBED (CUT OR FILL) SLOPES UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED.
2. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE FLOW DURING STORMS AND PERIODS OF RAINFALL.
3. SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.

SLOPE STABILIZATION AND VEGETATION:
1. ALL CONTROLS SHALL BE PLACED AT THE TOE OF ALL DISTURBED SLOPES. THIS SHALL BE MAINTAINED AS A SEDIMENT BARRIER UNTIL THE SLOPES ARE STABILIZED WITH GRASS.
2. THE DISTURBED SLOPES (CUT OR FILL) SHALL BE IMMEDIATELY MULCHED AS AN EROSION PROTECTION MEASURE.
3. MAINTAIN MULCH UNTIL THE SLOPES ARE STABILIZED WITH A SATISFACTORY GROWTH OF GRASS.
4. VEGETATION REMOVED MAY BE SHREDDED AND CHIPPED ON SITE FOR USE AS MULCH, OR IT MAY BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
5. THE RESEEDING OF THE DISTURBED SLOPES SHALL BE CONDUCTED WITH SEED MATERIALS SELECTED FOR PRODUCTION OF A QUICK COVER AND HARDY STAND. PARTICULARLY A CONSERVATION GRASS SEED OR COMPARABLE. THE SEEDING SHALL BE IN ACCORDANCE WITH COMMON NURSERY PRACTICE IN THE RHODE ISLAND AREA.
6. PROVIDED THAT THE PROVISIONS OF THIS SEDIMENTATION & EROSION CONTROL PLAN ARE IMPLEMENTED, THERE WILL BE NO ADVERSE ENVIRONMENTAL EFFECTS FROM THE PROPOSED CONSTRUCTION.

RAIN GARDEN CALCULATIONS:
* RAIN GARDEN SIZING CALCULATION PER RHODE ISLAND STORMWATER MANAGEMENT GUIDANCE DOCUMENT FOR INDIVIDUAL SINGLE-FAMILY RESIDENTIAL LOT DEVELOPMENT – TABLE 8: RAIN GARDEN SIZING.
* TOTAL IMPERVIOUS AREA = 4,200 S.F. OF ASPHALT DRIVEWAY
  RAIN GARDEN DEPTH = 8-INCHES
  SOIL TYPE: SILTY SOILS = 0.16 SIZING FACTOR
  4,200 S.F. AREA x 0.16 = 672 S.F. NEEDED
* RAIN GARDEN AREA PROPOSED = 675 S.F.

RAIN GARDEN NOTES:
1. RAIN GARDEN SHALL BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO (2) PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, THE RAIN GARDEN SHALL BE MONITORED AND MAINTAINED TO ASSURE PROPER FUNCTIONING PLANT GROWTH AND SURVIVAL. PLANTS SHALL BE REPLACED ON AN AS-NEEDED BASIS DURING THE GROWING SEASON.
2. SILT/SEDIMENT SHALL BE REMOVED FROM THE RAIN GARDEN WHEN THE ACCUMULATED SEDIMENT EXCEEDS ONE (1) INCH, OR WHEN WATER PONDS FOR MORE THAN 48 HOURS. THE TOP FEW INCHES OF MATERIAL SHALL BE REMOVED AND REPLACED WITH FRESH SOIL MIXTURE AND MULCH.
3. PRUNING OR REPLACEMENT OF WOODY VEGETATION SHALL OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED.
4. SOIL EROSION GULLIES SHALL BE REPAIRED WHEN THEY OCCUR.
5. FERTILIZER OR PESTICIDES SHALL NOT BE APPLIED TO PLANTS WITHIN RAIN GARDENS.
6. PERENNIAL PLANTS AND GROUND COVERS SHALL BE REPLACED AS NECESSARY TO MAINTAIN AN ADEQUATE VEGETATED GROUND COVER. ANNUAL PLANTS MAY ALSO BE USED TO MAINTAIN GROUND COVER.
7. THE PROPOSED PLANTINGS FOR THE RAIN GARDEN SHALL BE SUITABLE NATIVE PLANTS USED IN ACCORDANCE WITH THE RHODE ISLAND COASTAL PLANT GUIDE, WHICH IS LOCATED AT CELS.URI.EDU/TESTSITE/COASTALPLANTS/COASTALPLANTGUIDE.HTM.



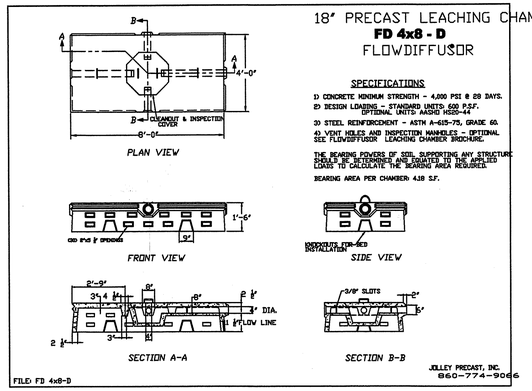
RAIN GARDEN CROSS-SECTION
NOT TO SCALE

INFILTRATION TRENCH NOTES:
1. PRIOR TO CONSTRUCTION, A SOIL EVALUATION SHALL BE PERFORMED AT THE LOCATION OF THE PROPOSED INFILTRATION TRENCH TO VERIFY A MINIMUM OF 2-FEET OF SEPARATION BETWEEN THE BOTTOM OF THE SYSTEM AND THE ESTIMATED SEASONAL HIGH GROUNDWATER TABLE.
2. THE CONTRACTOR AND/OR OWNER IS RESPONSIBLE FOR CONTACTING THE DESIGNER IF THERE IS A CHANGE TO THE ESTIMATED SEASONAL HIGH GROUNDWATER TABLE AS A RESULT OF THE SOIL EVALUATION.
3. THE INFILTRATION TRENCH MAY NEED TO BE MODIFIED TO MEET THE MINIMUM RI DEM WATER QUALITY STANDARDS.
4. THE INFILTRATION TRENCH PROVIDES WATER QUALITY ONLY AND ARE NOT DESIGNED TO MITIGATE THE 1-100 YEAR STORM EVENTS. EACH DOWN SPOUT SHALL HAVE A SURCHARGE PIPE (OVERFLOW WYE) AND SPLASH BLOCK DIRECTING ROOF RUNOFF AWAY FROM THE DWELLING AND TOWARDS THE ROADWAY DRAINAGE NETWORK.
5. THE PROPOSED INFILTRATION TRENCH IS TO BE A MINIMUM OF 15-FEET OFF ALL PROPOSED O.W.T.S. COMPONENTS AND A MINIMUM OF 50-FEET OFF ALL PROPOSED PRIVATE WELLS.

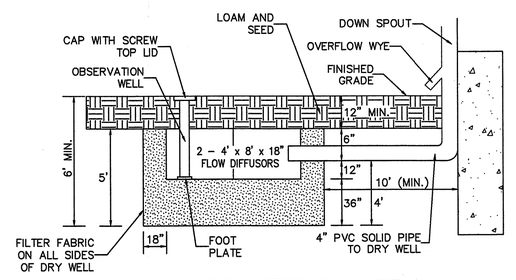
INFILTRATION TRENCH CALCULATIONS:
* INFILTRATION AREA TO BE FOR THE PROPOSED DWELLING AND GARAGE
* TOTAL IMPERVIOUS AREA = 2,230 S.F.
* INFILTRATION TRENCH CALCULATION PER RHODE ISLAND STORMWATER MANAGEMENT GUIDANCE DOCUMENT FOR INDIVIDUAL SINGLE-FAMILY RESIDENTIAL LOT DEVELOPMENT – TABLES 10 AND 11: SIZING GUIDANCE FOR INFILTRATION TRENCHES
  TOTAL DEPTH = 48 INCHES
  SOIL TYPE: SILTY SOILS = 0.059 SIZING FACTOR
  2,230 S.F. AREA x 0.059 = 131.6 S.F. NEEDED
* BOTTOM AREA OF PROPOSED INFILTRATION AREA = 133 S.F.

MAINTENANCE PLAN FOR THE STORMWATER MEASURES:
1. THE OWNER IS RESPONSIBLE TO INSURE THAT THE ON-SITE STORMWATER MEASURES ARE MAINTAINED PROPERLY AND FUNCTIONING AS DESIGNED.
2. THE ON-SITE STORMWATER MEASURES ARE TO BE INSPECTED ON AN ANNUAL BASIS OR AFTER ALL LARGE STORM EVENTS AND REPAIRED AS NEEDED.
3. THE INSPECTION OF THE STORMWATER MEASURES WILL INCLUDE:
   * BUILDING GUTTERS AND DOWN SPOUTS
   * THE INFILTRATION TRENCH (THROUGH THE OBSERVATION WELL) AND MEASUREMENT OF SILTATION AT THE BOTTOM OF THE TRENCH.
   * ANY OTHER ITEMS THAT DO NOT ALLOW THE STORMWATER SYSTEMS TO OPERATE PROPERLY.

THE STORMWATER MEASURES ARE TO BE REPAIRED IF THE FOLLOWING IS ENCOUNTERED DURING THE INSPECTION PROCESS:
   * CLOGGED GUTTERS AND/OR DOWN SPOUTS ARE TO BE CLEANED.
   * A LAYER OF SEDIMENT GREATER THAN 3-INCHES THICK IN THE BOTTOM OF THE INFILTRATION TRENCH IS TO BE VACUUMED OUT AND/OR DUG UP AND REPLACED.
   * ALL OTHER ISSUES THAT WILL NOT ALLOW THE STORMWATER SYSTEMS TO OPERATE PROPERLY ARE TO BE REPAIRED AS NEEDED.



INFILTRATION TRENCH ELEVATIONS:
EXISTING GRADE AT TRENCH.....121.0
EST. SEASONAL HIGH GROUND WATER TABLE.....113.0
  * PER TH#1 – WATER TABLE = 8'-0"
BOTTOM OF TRENCH.....115.5
BOTTOM OF FLOW DIFFUSOR.....118.5
INVERT IN FLOW DIFFUSOR.....119.5
TOP OF TRENCH.....120.0
FINISHED GRADE.....121.0
* HEIGHT OF TRENCH = 48"
* TRENCH BOTTOM AREA = 133 S.F. (7'x19')



INFILTRATION TRENCH DETAIL
NOT TO SCALE

PROPOSED O.W.T.S. PLAN FOR
NORTHEAST BUILDING SOLUTIONS, INC.
PLAT 40 , LOT 39
5 SNEECH POND ROAD
CUMBERLAND , RHODE ISLAND

DARVEAU LAND SURVEYING, INC.
P.O. BOX 7918
CUMBERLAND, R.I. 02864
PHONE 401-475-5700
E-MAIL: MIKE@DARVEAUSURVEY.COM

SCALE: 1" = 30'
DRAWN BY: S.A.K.
REVISED
DATE: OCT. 8, 2021
DRAWING NO: 2021_031
SHEET NO: 2 OF 2